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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,240

05/01/2007

Donald L. Horton

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02/11/2008

Rutan & Tucker, LLP.

611 ANTON BLVD

SUITE 1400

COSTA MESA, CA 92626

EXAMINER

FRIEDHOFER, MICHAEL A

ART UNIT

PAPER NUMBER

2832

MAIL DATE

DELIVERY MODE

02/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,240	Applicant(s) HORTON, DONALD L.	
	Examiner Michael A. Friedhofer	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/11/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8, and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Marker ('383).

Marker discloses in the figures a rotary circuit selection device comprising a driving cam 26 and an opposing stationary cam 27 each having a series of alternating peaks and valleys; a biasing mechanism formed by contact 31 to bias the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam; and a shaft 4 that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit. The peaks and valleys of the cams extend toward each other along a translational direction of motion of the driving cam. The circuit comprises electrical components. Each peak has an angle formed by converging sides of the peak and each valley has an angle formed by converging sides of the valley, and wherein the angles of the peaks and the angles of the valleys are substantially equal. The biasing mechanism is a compression spring. The outer springs form an outer diameter greater than an outer diameter of the driving cam. Each cam may have at least either 8 peaks and 8 valleys or 10 peaks and 10

valleys. The shaft extends through inner apertures of each cam. The amount of torque required to rotate the shaft is at least partly based on an amount of force of the biasing mechanism. Selecting a first circuit includes the step of biasing the driving cam toward the stationary cam. Torquing the driving cam causes the driving cam to translate between a received configuration and a distal configuration. As for the circuit using optical circuits or magnetic circuits, these are a matter of engineering design choice based on the materials available to the manufacturer and the environment in which the switch is being utilized.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 6-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Koide et al.

Koide et al discloses in the figures a rotary circuit selection device comprising a driving cam 10 and an opposing stationary cam 8 each having a series of alternating peaks and valleys; a biasing mechanism 12 configured to bias the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam; and a shaft formed by knob 11 that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit. The circuit comprises electrical components. The biasing mechanism is a compression spring. The spring has an outer diameter less than

an outer diameter of the driving cam. The shaft extends through inner apertures of each cam. The amount of torque required to rotate the shaft is at least partly based on an amount of force of the biasing mechanism. The step of selecting a first circuit also comprises the step of biasing the driving cam toward the stationary cam. The step of torquing the driving cam causes the driving cam to translate between a received configuration and a distal configuration. As for the spring having a diameter greater than the diameter of the driving cam with a washer to retain the spring, is a matter of engineering design choice based on the materials of available to the manufacturer. As for the number of peaks and valleys, this is a matter of engineering design choice based on the number of positions desired, thereby the number of functions to be operated. As for utilizing optical or magnetic circuits rather than electrical circuits, this is a matter of engineering design choice based on the components available to the manufacturer, as well as, the environment in which the switch is being utilized.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cope, Delp, Marker ('482), and Liu teach various rotary switch structures using crown detent mechanisms.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael A. Friedhofer
Primary Examiner
Art Unit 2832

maf

/Michael A. Friedhofer/
Primary Examiner, Art Unit 2832